



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Sandhu et al.

Serial No.: 10/637,102

Filed: August 8, 2003

For: LOW RESISTANCE CONTACT TO
SILICON HAVING A TITANIUM SILICIDE
INTERFACE AND AN AMORPHOUS
TITANIUM CARBONITRIDE BARRIER
LAYER

Examiner: L. Gurley

Group Art Unit: 2812

Attorney Docket No.: 2269-3264.7US
(92-0280.10/US)

CERTIFICATE OF MAILING

I hereby certify that this correspondence along with any attachments referred to or identified as being attached or enclosed is being deposited with the United States Postal Service as First Class Mail on the date of deposit shown below with sufficient postage and in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

April 6, 2004
Date

Signature

Deidra Pfeil
Name (Type/Print)

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In compliance with the duty to disclose information material to patentability pursuant to 37 C.F.R. § 1.56, it is respectfully requested that this Supplemental Information Disclosure Statement be entered and the documents listed on attached Form PTO-1449 or PTO/SB/08 be considered by the Examiner and made of record. The listed documents are from co-pending application Serial No. 10/637,107, filed August 8, 2003. Copies of the listed documents are enclosed pursuant to 37 C.F.R. § 1.98(a).

In accordance with 37 C.F.R. § 1.97(g) and (h), filing of this Supplemental Information Disclosure Statement is not to be construed as a representation that a search has been made or an admission that the information cited herein is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b). Further, no representation is made by Applicants herein that no other possible material information as defined in 37 C.F.R. § 1.56 (b) exists.

U.S. Patent Documents

<u>U.S. Patent No.</u>	<u>Publication Date</u>	<u>Patentee</u>
4,998,151	03/05/91	Korman et al.
5,242,860	09/07/93	Nulman et al.

Foreign Patent Documents

<u>Document No.</u>	<u>Publication Date</u>	<u>Patentee</u>
WO 86/01640	03/13/86	Dean

Other Documents

EIZENBERG et al., "TiCN: A new chemical vapor deposited contact barrier metallization for submicron devices", Appl. Phys. Lett. 65 (19), 7 November 1994, pps. 2416-2418.

Peng et al., "Properties of CVD-W Overgrowth on PVD and MOCVD TiN Layers, IEEE, 5th International Conference Proceeding on Solid-State and Integrated Circuit Technology, 1998, pps. 211-214.

Applicants offer to supply any explanation or discussion of the documents which the Examiner feels is necessary or desirable and which is requested.

This Supplemental Information Disclosure Statement is filed after the mailing date of the first Office Action on the merits.

I hereby certify that no item of information contained in the Supplemental Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of the statement, and therefore no fee is due.

Respectfully submitted,



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Date: April 6, 2004
JRD/sls:djp

Enclosures: Form PTO-1449 or PTO/SB/08
Copy of documents cited

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PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet

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of

2

Attorney Docket Number

Complete if Known

Application Number

10/637,102

Filing Date

August 8, 2003

First Named Inventor

Sandhu et al.

Group Art Unit

2812

Examiner Name

L. Gurley

Attorney Docket Number

3264.7US (92-0280.10/US)

U.S. PATENT DOCUMENTS

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FOREIGN PATENT DOCUMENTS

[illegible]

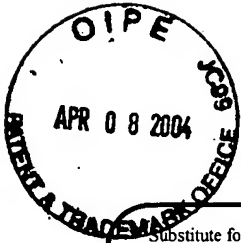
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STATEMENT BY APPLICANT**

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Sheet 2 of 2

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Application Number	10/637,102
Filing Date	August 8, 2003
First Named Inventor	Sandhu et al.
Group Art Unit	2812
Examiner Name	L. Gurley
Attorney Docket Number	3264 7US (92-0280.10/US)

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		EIZENBERG et al., "TiCN: A new chemical vapor deposited contact barrier metallization for submicron devices", Appl. Phys. Lett. 65 (19), 7 November 1994, pps. 2416-2418.	
		Peng et al., "Properties of CVD-W Overgrowth on PVD and MOCVD TiN Layers, IEEE, 5 th International Conference Proceeding on Solid-State and Integrated Circuit Technology, 1998, pps. 211-214.	

Examiner Signature		Date Considered	
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